

**TRANSFORMATION OF RETAILING IN CHINA**  
**A Dynamic and Evolutionary Perspective**

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## 探索走在演化路上的中國零售市場

### 論文摘要

想想過去數年，中國大陸的國營零售業者遂漸失去其競爭力，給予非國營零售業者搶佔市場？為什麼掌握了極大優勢的國營業者，自一九七八年改革開放以來，零售渠道結構備受衝擊、改造、甚至消亡。但既然如此，中國的政府為何要開放那早已封閉了幾近四十年的分銷渠道予外來競爭者？

此論文憑藉演化學說試圖解釋上述問題。在複雜系統內，往往難以釐清各類互動關係而獲至簡單均衡的結論。為了掌握複雜系統所呈現的形態和秩序。本文賴以零售市場來探求這些複雜性(Complexity)、自我組織性(Self-Organization)、不可預測性(Unpredictability)、路徑依賴性(Path-Dependency)、引起巨大歷史後果的小事件性和學習性(Learning)等情況。並把各類互動關係歸納為零售演化模型(Retail Evolutionary Model)，當中包括三大主要力量來源：政府干預、市場因素和零售業者以提供一個動態視野剖析當前和前瞻零售市場的動向。

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Finally, I would like to dedicate this work to my neglected parents and maltreated boy friend, Kenny.

In contrast to Ludwig Wittgenstein (1889-1951) said, "knowledge is in the end based on acknowledgment," my knowledge has just begun to progress and evolve based on this acknowledgement.



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## ABSTRACT

In China, why did the state-owned retailers begin to lose their competitiveness several years ago, thereby giving rise to non-state run retailers such as foreign joint ventures and private enterprises? For that matter, why do the Chinese government open the retail channel, which had been kept closed for about forty years, to the global competition? Why did retail structure often remained stable in the time before economic reform in 1978 -- and then die out or transform themselves into something never ever seen when the Chinese government released the control over the retail channel? This thesis is exploratory in nature, which attempts to answer these questions from an evolutionary perspective. The conceptual framework emerging from evolutionary economics is the basic foundation to investigate this complex system. Particularly, the retail industry is amenable to a study of this nature. Complex in the sense that a great many independent agents including different classes of retailers are interacting with each other in a great many ways. For evolution, it is defined as an ongoing and irreversible process, with non-optimal variations driven by internal and external forces.

Thus, the transformation of retailing reflects the cumulative effect of a long history of path-dependence, self-reinforcement, learning and selection, are regarded as internal driving force, namely managerial effectiveness. External driving forces including governmental mediation and market factor also play an active role in

transformation are identified and discussed. Moreover, the very richness of the interactions among different forces allowing the retail system as a whole to undergo evolution after economic reform will also be examined. Such interaction comes up with the proposed Retail Evolutionary Model, as a result of external selective forces, internal driving force of retail class competition, adaptation, path dependence, and irreversibility of economic development. The model is calibrated on the great China to demonstrate evolutionary movement of different retail classes in response to the driving forces mentioned above. The discussion throughout this thesis provides a new perspective and conceptual framework, which is so striking, that the evolutionary concepts are convincing and more here than just a series of nice analogies. These can be used to explore the question of anticipating the future and evaluating the dynamics of the retailing industry and inter-relationship among government's policies, managerial practice, and consumers' decision.



## CHAPTER ONE: INTRODUCTION

Business economy depends on the environmental resources to preserve in existence. In return, environment helps shape the characteristics of business environment to a newer bountiful system. Both entities co-evolve and bring forth with each other. While business economy, politics, and economic policy interfering with environment is well understood; it is difficult to see the impacts of the environment to the development of the economic system. Arthur (1994) claimed that the introduction of evolutionary economics therefore helps us understand the workings of modern economic development. The new discoveries from this school of thought such as the nurturing process, path-dependency, adaptation, and learning process have led to a new understanding of how and why complex systems work.

To crystallise the concepts of evolution applied to economic system, this study uses the retail industry to explore how and why its continuously changes, thereby extend the reasoning beyond the traditional punctuated equilibrium view, in which change is primarily seen as rare, risky, and episodic, to one in which change is dynamic, frequent, and relentless. To begin with, both dynamic processes - reform and institution, which were assumed to have nontrivial impacts on the diversity of economic structures within a given population, have to be revamped. In Arthur's (1994) words, 'The actual economic world is one of constant transformation and change. It is a messy, organic, complicated world'. To that perspective, evolutionary



economics is of great contribution to explore the role of these dynamic changes within a broader perspective. Meanwhile, the Chinese retail industry is particularly amenable to a study of this nature (Lee & Tang 1998).

## 1.1 RESEARCH MOTIVATION AND ISSUES

One reason to study transformation of retailing in China is because the extraordinary development of this sector after economic reform began in 1978. Before economic reform, channel distribution and retail sales were strictly controlled by the Ministry of Commerce (now known as the Ministry of Domestic Trade) in China. Not only prices were regulated by the state bureau, most of the products could only be accessed via designated outlets such as state-own retail stores. After the reforms, the extent of market openness is uprising, but the dominance role from the State has never been lessened. Likewise, many private and overseas retailers still find it is difficult to operate competitively in this sector.

For another reason, China's gradual reform over the last two decades has achieved tremendous success and attracted worldwide attention. The original economic structure under Communism regime has in large part been dismantled while the new market-driven mechanism is taking shape. Yet the new system has not been fully transited, with state government's socialism doctrine and market's efficient rule conflict with each other all the time. Reflects on the turbulent development of

the economy is the coexistence of state-owned enterprise and private- and foreign-owned retailers that compete for China's intermediary market. Consequently, this springs up many striking issues, especially to a transitional economy like China. For market practitioners, they find it is difficulty to plan and execute marketing programs under such a capricious environment. For academics, this is a problematic gap to provide a general guidance to reckon with transitional economy. It is difficult to judge whether the state's intervention is to support the solution towards an efficient market, or to seek to expand the powers for her own. There should be some form of enforcement mechanism that can safeguard the transformation of economic structure. Thus, there is an urgent need for studying the inducement to retailing transformation and accommodate an in-depth understanding of governmental policy reciprocal with economic structure and market environment.

## 1.2 PURPOSE OF STUDY

This thesis is not to make an exhaustive study of the evolution of the economic system. Instead, a series of issues in retailing are selected and discussed that provide insight to view the transformation of economic system in China. The analysis of evolution can deal with many different aspects of the current economic complexity, but this study focuses *primarily on the ownership structure of retailing evolved while China is on her transitional road.*

In short, the purposes of this study are:

- to review the literature in retailing;
- to outline the conceptual elements of evolution so as to examine the dynamics and complexity of retailing;
- to examine the historical events happening between 1978 and 1995 in China, of particular interest in the retailing industry;
- to use evolutionary perspective to study the current Chinese retail situation.

The deduction of the thesis is from macro-marketing theory, which involves inducting insights from historical data and events. Since the study is exploratory in nature, an inductive approach is more likely to generate novel and meticulous insights into the phenomenon under study. Time series data collected from governmental publication agencies will be used to serve that purpose.

To avoid confusion about the study purpose, below explains briefly what this paper is not going to argue:

- No empirical test is implemented owing to the data deficiency;
- The evolutionary perspective adopted here is not for normative purpose, but for positive purpose where it is to identify past and future trends and to investigate the performance of particular ownership class of retailers in the transitional economy;
- No market efficiency and optimal combination of retail compositions are



discussed since the evolutionary perspective views the market in multiple equilibria.

### 1.3 THESIS OUTLINE

This thesis is organised as follows: Chapter two is to review literature in retailing. Three prevalent approaches, neo-classical economics approach, cyclical approach, and evolutionary approach are discussed. Besides, this study in relation to the transformation process involves two more facets: economic reform and institutional change. Since most retail theories have been developed under the domain of capitalism, it is therefore necessary to review the concepts of economic reform and institutional change leading to the fuzzy application of retail theories to other countries.

Chapter three overviews the importance of evolutionary approach to the understanding of retail structure changes. The new model Retail Evolutionary Model (REM), which is extended from evolutionary economics literature, is developed. To help understand the model, a number of elements associated with the theory are discussed.

Chapter four is to calibrate the model to the Chinese retailing industry. In particular, the historical events happening in the last two decades are specified in

relation to the evolutionary process. This is followed by the discussion of evolutionary approach to retailing and some theoretical implications of the analysis. The result is not so much a fully specified theory, as it is not an empirical study, rather it is an orientating model indicating the complexity that has been largely neglected in studies of retail evolution. Conclusion and implication will be discussed in the final chapter.



## **CHAPTER TWO: LITERATURE REVIEW**

Retail transformation has been discussed in the context of several phenomena, such as equilibrium, evolution, and self-organisation (Wilkinson 1990). In each case, there is a discipline to back up the phenomenon including macroeconomics, industrial organisation, evolutionary biology, political science, and systems theory. The first part of this chapter reviews three prevailing schools in retailing literature, namely neo-classical economics approach, cyclical approach and evolutionary approach, to provide an overview on how retail industry transforms. Since most retail theories are developed under the domain of capitalism, there is an urge to discuss the fuzzy application of these approaches in other societies, especially those innate with communism. Thus, the remaining chapter is to discuss the concepts of economic reform and institutional change. These two concepts influencing our understanding and interpretation of retail theories fundamentally.

### **2.1 RETAIL STRUCTURAL CHANGE**

#### **2.1.1 The Neo-classical Economics Approach**

Most theories of channel and retail structure in marketing modelling literature are static in nature (Bucklin 1966, 1972, Ingene and Perry 1995, McGuire and Staelin 1983). With changes in various parameters, such as manufacturing costs,

wholesale price, selling price, and product substitutability rate, each manufacturer is able to determine the optimal channel structure to maximise its profit or sales. This is the neo-classical economics approach, which assumes that with sufficient intensity of competition all channel structures except optimiser would fail the "survival" test and become "distinct."

However, transformation, change, and messiness are natural in the economy. The increasing-returns world in economics is a world where dynamics, not statics, are natural; a world of evolution rather than equilibrium; a world of probability and chance events (Arthur 1994). In real business world, the economy changes from time to time, and is frequently broken by sudden disruptions and turbulent conditions. The channel structure in transitional economy such as China's is a case of example. During turbulent conditions, the success or failure of a retailer may be unrelated to the 'fitness' of that retailer in terms of its profit maximisation capability. Perfectly adapted firms or retailers may be completely wiped out through no fault of their own when the business climate suddenly changes.

Except for the comparative static assumption, other complaints about the neo-classic economic approach are the concepts of rationality, optimality, and efficiency (Hodgson 1994). Profit maximisation behaviour is usually embedded with rationality of the acting agents, given utility or preference functions, move towards equilibrium states. This notion of rationality, however, raises questions concerning

the nature of learning process for acting agents on the process of "rational learning." How can agents be said to be rational at a given point in time when they are in the process of learning and acquiring relevant information? Hodgson (1993) concludes that the very act of learning means that not all information is possessed, thus global rationality is ruled out. To illustrate, for instance, since July 1992, the central government has approved eighteen joint-venture retail firms that have obtained permission to open 115 outlets, including Wal-Mart of the US, Metro of Germany, Carrefour of France, and Sogo of Japan. However, during the year of 1997-98 falling profits among the domestic retailers, the central government considers to set the barrier to the foreign investment on the one hand. On the other hand, China is in the final stage of negotiations to enter the World Trade Organisation and keen to show its markets are open to foreign companies. Thus, the local retailers are annoyed by the ambiguity of government policies and the incomplete information. Likewise, hardly can they process the rational learning and take action probably to cope with the complex environment.

Hodgson (1994) also argues against the optimality and equilibrium assumption that change (or in his word, evolution) in economy or society does not necessarily lead to optimal or ideal outcomes. This is because the markets, most of the time, are not efficient (North 1991). Environmental factors, such as political, social, cultural and technology factors, might easily alter the path towards equilibrium. When a large number of individual firms compete, given the technology



and the preferences of consumers, they are forced to select and produce the most efficient combination of capital and labor. Yet the optimality in allocating efficiency simply take technology and environment for granted, the rational economic behaviour either in an unreal institutional void or in a fixed and stable environment. Arthur (1984) claimed that the ordinary assumption of decreasing returns corresponds to economic equations with a "second-order" nonlinearity, which drives the economy toward equilibrium and stability. What he was looking at were "third-order" nonlinearities -- factors such as social unrest, policy change, and technological advance that would drive some sector of the economy away from equilibrium. It is so-called the feedback.

Challenge to the efficient market concept also leads to the question of the locus of change and selection in the economy. Under the orthodox economic approach, it is the firm that must make a positive profit in order not to become "extinct." The view that the firm is the locus of the selection process is consistent with the implicit marginal assumption that economic change is gradual. If economic selection takes place at the industry sector or at an even higher hierarchical level, this poses a problem for the marginalists because firm's failure does not necessarily indicate irrational or non-optimal decision but quite possibly by chance, such as historical accidents or political struggles. Similarly proposition can apply to channel and retail industry.

### 2.1.2 The Cyclical Approach

Similar to the efficiency and the optimality concept in neo-classic economic approach, the cyclical approach maintains that economic changes occur in an oscillatory or cyclic manner, retail institutions adapt to the change by means of gradual improvements in operation formats (Douglas 1971, Galbraith and Holton 1955, Goldman 1978). Arguments over the cyclical approach to explain retail transformation are tremendous (Samiee 1993, Savitt 1988a), Brown (1987, 1988) has provided a comprehensive overview on this approach including the following three dogmas:

*The Wheel of Retailing:* First proposed by Malcolm P. McNair (1931, 1958, 1976) in early fifties, this framework is undoubtedly the most famous and frequently cited theory about retail institutional change. It asserts that retail institution commence as a price-cutting and low cost, low margin operator, which subsequently "trades up" in improving display, product assortment, premise, and service to a more prestigious status. Eventually the institution matures as operation costs increase that force the institution to advance to "top heavy" operations with a sales policy based upon quality goods and services rather than price appeal. This, in turn, opens the room for the next low cost innovator to enter; and so the wheel revolves.

*The Retail Accordion:* The retail accordion or general-specific-general cycle,



describes the evolution of the modern retail business in terms of number of product assortment lines handled by the predominant institutions (Hollander 1966). This refers to a rhythmic pattern of development, pre-eminent by institutions selling from a wide variety to a narrow range of merchandise. Retail accordion theory is different from the wheel of retailing since the former stresses the change of operations mechanism, while the latter emphasis on cost and efficiency.

*The Retail Life Cycle*: Analogous to the product life cycle concept, Davidson (1970) and McCammon (1975) proposed the retail institutions evolve through the anthropomorphic stages of birth, early growth, development, maturity and decline. When a retail institution endowed with significant competitive advantages over existing operators in achieving public acceptability, it enjoys rapid increase in sales. This concept combines the wheel of retailing and retail accordion concepts and maintains that every retail format does go through the life cycle when the operating cost and functions change over time.

Similar to the hotly debated on product life cycle explanation (Hunt 1991), the cyclic dogmas help to explain some type of retail structural changes, but they did not provide evidence on cause and effect of those changes. With respect to the environmental causation, Arndt (1972) and Bucklin (1972) showed that retail performance depends on a number of environmental characteristics such as personal consumption expenditures per capita, passenger car ownership, geographic

concentration of population, and inhabitants per retail establishment that affect market potential. As Etgar (1984) indicates, "Closed system models disregard the inherent dependency of any retail system on its environment" (p.43), this approach ignores interactions of technology and environment to retail transformation.

Moreover, when compared against a longer history of retailing, the theories may not even be correct because of their limitation to primarily a single line of trade and to a short period of time. The universality to all retail institutions could be a question (Savitt 1989). Yet one thing worthy to mention is the level of analysed unit. While most retailing studies have taken the view from the perspective of the individual establishment such as department store, supermarket, and grocery store, these studies examine the consequences of household consumption on the intermediary members including channel and retail system, wholesale and the industry (Hunt and Burnett 1982).

### **2.1.3 Evolutionary Approach**

It is generally agreed that the evolutionary approach reinforced Darwin's theory to interpret the complexity phenomenon could arise as unintended consequences of historical events. In contrast to a mechanistic philosophy of neo-classic economics on equilibrium and prediction, this approach stresses on non-equilibrium and non-linearity of economic growth. Many economists such as Adam

Smith, Thomas Malthus, Alfred Marshall, Thorstein Veblen, and Joseph Schumpeter have argued the importance of evolutionary thinking as the source of inspiration (Hodgson 1994).

The earliest retail evolution theory can be ascribed to Allyn Young's renowned 1929 paper, "Big Business: How the Economic System Grows and Evolves Like a Living Organism - What Will Become of the Small Retailer?" Young recognises the importance of the interdependence between the division of labor and the extent of the market that leads to the development of new products, new tasks, and new industries. The department store and the chain stores, for instance, were benefited from the development of new technology, i.e., telephone and automobile at that time, which enabled those large-scale operators to rule over small retailers in delivering the bewildering varieties of goods to the widely dispersed markets. These improvements, Young stresses, are related to the economic change and retail evolution since, "Every innovation, whether in the technique of production or in the organisation of business, affects in some degree the conditions which govern the activities of other producers. The economic system grows and evolves, like a living organism, by means of successive adjustments and adaptations. But changes breeds change, and every new adjustment paves the way for others."

Meanwhile, the evolutionary perspective of economic growth has emerged as a distinctive paradigm from neo-classic economics because of two reasons. One is



on the concept of *equilibrium*. Neo-classical economists assume diminishing return, rationality, and efficiency of production and preference functions that ultimately lead to an equilibrium solution. On the contrary, the economies or the markets of evolutionary view suffer from "imperfection" and "inefficiency." Because of lock-in effect and path-dependency, the system might end up with multiple equilibria; some of them are recognised with deficiency (Examples of deficient survivors are QWERTY keyboard, VHS recorder, and Microsoft's Windows 3.1. In particular, QWERTY keyboard will be discussed in a detail in the following chapter).

The other ontological argument is the *behaviour of acting agent*. Think of the millions of mutually interdependent individuals who try to satisfy their material needs unconsciously organise themselves into an economy through myriad individual acts of buying and selling; it happens without anyone being in charge or consciously planning it. Thus, the behaviour of acting agent is rather complex, in the sense that great many independent agents are interacting with each other in a great many ways. Individuals evolve for better survival in a changing environment, and so do corporations and industries. And the marketplace responds to changing tastes and lifestyles, immigration, technological developments, shifts in the rental price, and political unrest. Everyone in such complexity possesses a kind of dynamism that makes him or her qualitatively different from static objects such as computer chips and tends to organise itself and adapt to the systems. Hence, the neo-classical

economics and cyclical approaches cannot grasp the chaotic and dynamics of the economy.

Seen in this way, the model and theories used for definition and explanation in the neo-classical economics approach is quite different from the models and theories suggested by the evolutionary approach. The former one relies on deductive models in the sense that they attempt to explain biological phenomena by deducing them to a mathematical or to a mechanical model. The evolutionary analysis, on the other hand, is not deductive but inductive; rather than attempt to deduce biological phenomena to mathematical or to mechanical terms, it sees the entire process of evolution in terms of different correlated historical events. Of course, it is more complex. In Wallace's (1972) word, 'no subject appears more suited to causal analysis than human behaviour, since it is within himself that man is most aware of the agency that produces acts and the purpose or intentionality that lies behind them. Yet it is an unfortunate fact that social scientists, in their efforts to be "empirical" and thus as like the "hard sciences" as possible, have tended to undervalue their privileged source of insights'.

In addition to reviewing the retailing literature, two more areas should also be notified: the understanding of *economic reform* (or *transformation*) and *institutional change*.



## 2.2 THE ECONOMIC REFORM AND INSTITUTIONAL CHANGE

The notion of transformation implies change from one condition to another. Transformation is induced by the *economic reform*, which is defined as a change in the operating principles of the economic system involving a shift to a different economic mechanism (Brus 1985, Kornai and Daniel 1986). Kornai and Daniel referred the economic mechanism to a co-ordination mechanism: bureaucratic and market co-ordination. And since it is the bureaucratic one that is to be changed, the term economic reform is in particular for a change in socialist economic system, provided that it diminishes the role of bureaucratic co-ordination and increases the role of the market. Thus, Yugoslavia, Hungary and China are said to be so far the only countries that have embarked on the venture of economic reforms according to the criteria of Kornai and Daniel. However, the current literature on economic reforms has, by and large failed to contribute to a theoretical framework setting out criteria by which to assess the economic reforms (Temkin 1989).

The force of transformation or economic reform comes very large from the multiple agents who are dissatisfied with prevailing conditions, especially in China where the society faces the dilemma of ideologies between communism and capitalism. It should also be noted that in a transforming economy, government policies aimed at encouraging economic development could influence changes in interest-dominated channels (Dahab, Gentry, and Sohi 1996).

Another important concept needed to clarify in this paper is "institutional change". *Institution* takes a broad definition of the term "institution" on itself. North (1995) defines institution as a framework of behaviour: institutions direct, channel, or guide behaviour. Institutions are the rules of the game of a society or, more formally, are the humanly-devised constraints that structure human interaction. They are composed of formal rules (e.g. statute law, common law, regulations), informal constraints (e.g. conventions, norms of behaviour, and self-imposed codes of conduct), and the enforcement characteristics of both. Thus, the institutional change can not only be regarded as the transformation of ownership rights, but also the extent to which changing the retail prices alter economic activities and consumption behaviour.

There are two general definitions on the institutional approach, as concluded by North (1995), one based on Veblen and the other on Commons. In North's paper, Veblen defines institutions very loosely and broadly as "settled habits of thought common to the generality of men". Individual is to carry out the exigencies of big cultural forces placed in a Darwinian perspective. While Commons believes the existence of a voluntaristic world of collective rules, he assumes a man-made social order with a high degree of constructivism. Institutions also exhibit inherited stabilising qualities which are passed on through time, "the dead weight of social inertia supported by intentionally taught tradition" as Hirschleifer (1977) has put it.

Another scholar, Hall (1986) states that the institutional approach is that the organisation of policy-making affects the degree of power that any one set of actors has over the policy outcomes, and that organisational position also influences an actor's definition of his own interests, by establishing his responsibilities and relationship to other actors. Among various definitions of institution, Commons' thinking is widely applicable in the development of this approach (North 1995). In Commons' point of view, conflicts of interest render certain institutions socially inefficient; institutionalisation then is an (artificial) process of selection of (increasing) efficient and reasonable rules.

These conflicting interpretations of the institution shape the main arguments in this thesis which require clarification beforehand. Neo-classical economists very often regard "operations arrangement" as "institution." And they further regard institution as exogenous to the retailing structure change such that there is no attention to rules and regulations that structure the relationship among them and that shape the direction and progress of policy. But in fact, institutional arrangement is not exogenous, rather it is endogenous, especially in the politics of transition (Cheung 1984). In transitional period, socialist societies, like China and Hungary, there are some people constrained by rules and some setting up rules, and most often policy makers are a mix of both.



To conclude, economic development is *not exogenous* indeed. Relationships between retailing and economic development have been questioned and evaluated in a number of contexts (Brown 1988, Samiee 1993, Savitt 1988a). On one hand, marketing and retailing are driving forces of economic development by generating efficiency and productivity; on the other, performance of marketing and retailing function is determined by the progress of economic development (Savitt 1988b). Though North (1990, 1995) acknowledges the importance of formal and informal constraining behaviour affect how agents interpret their world and account for the nature of change, he also admits that he is unable to incorporate a theory of culture and ideology into his model and fails to explore how this interpretative process. Strictly speaking, it can be summed up by Fullerton's (1986) words, there has been a missing between the development of hypothesis testing and historical testing in retailing studies. The emphasis has been on short bites from a longer perspective and as a result, we have neglected to see retailing in its larger and more complex context.

Here brings out the similar case in the transformation of retailing. The retail environment evolves as the economic system reforms. To study how retailing evolves from one economic system to another, the evolutionary approach is much appropriate and is proposed here seeking to understand how the external and internal selective forces impact on the retail population.



## CHAPTER THREE: CONCEPTUAL OUTLINE OF EVOLUTION

Arthur (1994) claimed that all sorts of economists were getting antsy, starting to look around and sniff the air. They sensed that the conventional neo-classical framework that had dominated over the past generation had reached a high water mark. It had allowed them to explore very thoroughly the domain of problems that are treatable by static equilibrium analysis. But it had virtually ignored the problems of process, evolution, and pattern formation -- problems where things were not at equilibrium, where there's a lot of happenstance, where history matters a great deal, where adaptation and evolution might go on forever.

It is the hallmark of the present understanding of agents and organisations to see the evolution and this complexity as a result of historical accident, due to random mutations and selection. It is the aim of this chapter to explore the contemporary view of biological metaphor to economic system, particularly in retailing.

### 3.1 ACTING AGENTS

Each of these systems is a network of many "agents" acting in parallel. In a brain the agents are nerve cells, in ecology the agents are species. In an economy, the agents may be individuals, manufacturers, suppliers, intermediaries or households. In the retail system in China, the agents may be state-owned retailers,

private retailers, and foreign joint-venture retailers. But regardless of how we define them, each agent finds itself in an environment produced by its interactions with the other agents in the system. It is constantly acting and reacting to what the other agents are doing. And because of that, essentially nothing in its environment is fixed.

Additionally, Holland (1992) claimed that a complex adaptive system has many levels of organisation, with agents at any one level serving as the building blocks for agents at a higher level. In the brain, one group of neurones will form the speech centres, another the motor cortex, and still another the visual cortex. In precisely the same way, a group of individual workers will compose a department, a group of departments will compose a division, and so on through companies, economic sectors, national economies, and finally the world economy. In case of retail structure, retail species will compose a retail class, and retail classes will form a retail structure.

To elaborate further, retail species here refers to the operational arrangement such as supermarket, kiosk, convenience store, and department store. While for retail class, it refers to any ownership form such as state-owned retailers, collectively-owned retailers, foreign joint ventures, or private retailers. Each ownership form of retailers may have the same or similar types of retail species (see table 3.1).

Table 3.1

The Composition of Retail Class and Retail Species

| Retail Class   | State ownership  | Collective ownership   | Private ownership  |
|----------------|--|--|--|
| Retail Species | <ul style="list-style-type: none"><li>• Department Store</li><li>• Supermarket</li><li>• Grocery Store</li></ul> | <ul style="list-style-type: none"><li>• Department Store</li><li>• Supermarket</li><li>• Grocery Store</li></ul> | <ul style="list-style-type: none"><li>• Department Store</li><li>• Franchise Store</li><li>• 24-hour Convenience Store</li><li>• Kiosk</li><li>• Grocery Store</li></ul> |

Note: By definition, state-owned enterprises refer to any enterprises and government administrative organisations with state ownership of production means. Collective-owned enterprises refer to various enterprises and institutions with collective ownership of production means and run by city- or county-level of governments. Private enterprises refer to economic units owned by private individuals, including individual owned private enterprises and jointly owned private enterprises<sup>1</sup>.

The underlying concern of this thesis is primarily on the ownership structure of retailing. The debate centres on the extent to which the historical events have led to the changes in the retail classes. Therefore, there is an urge to explain the underlying meaning of ownership class as the unit of analysis here. The acting agents, retailers, include state-ownership, collectively-ownership, private-ownership, and other forms of ownership, e.g. foreign joint ventures. This study captures the different ownership classes of retailers at which there is relatively homogeneity among each class. For different classes of retailers, they have the different organisational structure, perform the different functions, and acquire different basic competencies. As Hannan and Freeman (1989) said, "the current diversity of

<sup>1</sup> The definition of ownership class is in accordance with the classification used in the Chinese Statistical Yearbooks.



organisational forms reflects the cumulative effect of a long-history of variation and selection," the fundamental routines inherited individually are difficult to change.

The acting agents and the environment are interrelated. Undoubtedly, each agent itself will modify and rearrange its performance and behaviour through the process of evolution. Usually management improves with adoption and use. In the case of several initially undeveloped management available for adoption, each with the potential of improvement with use, the sequence in which adoptions occur may decide which management style improves. This time choice is by different agents each time -- adopters acting in their own individual interest. Where adopters are exactly alike in their preferences, the outcome is trivial.

This analogue applies to the retailing system where state-owned retailers and non-state-owned retailers interplay with each other in the socialist market economy. The importance to stress the ownership class of retailers is that each ownership class innate with different genes in accordance with their parent class and that the genes they select will influence their performance substantially.

At the outset of reform, China's *state-owned retailers* functioned as passive agents of the state economic bureaucracy. Managers had little authority over research and development, product innovation, investment planning, marketing, or even such routine matters as production scheduling, material purchases, wage



structures, and employment levels. The genes inherited include work for command, a culture to stick for the central planning, and policy-oriented. While for the non-state retailers, innovation, incentives and competition are their inherited characters. *In considering the transformation of retailing, a full analysis must therefore penetrate to the class level instead of individual enterprise as a single acting agent in response to the progress of economic reform.*

### 3.2 THE STIMULI AND SOURCE OF EVOLUTION

Evolutionary change generally refers to change that depends much on the structure of already existing institutional arrangements. Hence, the choices that a particular population make today bear much on future choices and change occurs incrementally in a path dependent way. Along this way, there are various sources and stimulus of evolution as discussed below.

#### Selective Forces

An evolutionary approach to economic change involves, above all, an explicit analysis of the selection mechanism, the reasons for economic survival. Three types of selection can be distinguished. One type of selection takes place at the firm level. At this level survival depends on efficiency, on internal decisions of the firm in choosing the most efficient technique of production, that is, the selection of

microinventions (Penzkofer et al. 1989, Mokyr 1990) or genetic selection or managerial effectiveness. The second type refers to natural selection, meaning the selection by the market environment such as consumer demand. The final type is an artificial selection process which depends on governmental policies such as macro economic control, price control, and trade restrictions which affect the whole economy.

In addition to the selective forces, the ideas of increasing returns, path-dependency, lock-in, learning, irreversibility, and tiny events that have immense historical consequences are the utmost important properties in the evolutionary approach. They allow us to understand the spontaneous, self-organising dynamics of the world in a way that no one ever has before -- with the potential for immense impact on the conduct of economics, business, and even politics. Hence, the properties here are interrelated with discussion laid out in the following.

### **Increasing Returns (Positive Feedback) and Path-Dependency**

Neo-classical theory assumes that the economy is entirely dominated by negative feedback: the tendency of small effects to die away. Indeed, negative feedback or diminishing returns is what underlies the whole neo-classical vision of harmony, stability, and equilibrium in the economy (Arthur 1994). Economic actions engender a negative feedback that leads to a predictable equilibrium for prices and market shares. Such feedback tends to stabilise the economy because any

major changes will be offset by the very reactions they generate. According to conventional theory, the equilibrium marks the "best" outcome possible under the circumstances: the most efficient use the allocation of resources (Arthur 1990, p.92). And yet, the evolutionary approach realises the opposite. While diminishing returns imply a single equilibrium point for the economy, positive feedback or increasing returns makes for many possible equilibrium points. There is no guarantee that the particular economic outcome selected from among the many alternatives will be the "best" one. Increasing returns have more than one source in fact. The transmission of information based on experience may serve also as reinforcement for early leading positions and so act in a manner parallel to more standard forms of increasing returns. A similar force leads to courses of action and inhibit others, thereby causing the first to be sampled more intensively, and so forth. Hakansson and Lundgren (1997) refers this as *path-dependence* in which history really matters in the sense that knowledge of the present is not sufficient when it comes to predicting the future: some knowledge of the past is also necessary. The dynamics of a system are not only governed by where it is, but also by where it is coming from.

One example of lock-in and path-dependency is that in the communist society, the government has implemented a series of policies to preclude state-owned enterprise (SOE) from market competition. If SOE is inherently "superior" and appeals to gain a larger proportion of market share, it is more likely to persist in because it possesses "selection advantage" from the government. In this case, the



path is the protection policy set up by the government. The state may gain a larger market share in retailer sales because it depends on the past protection policy. In other words, *the protection policy in the early history of the path-dependency can lock the system into one of a number of equilibria.*

Here the concepts of increasing return and path-dependence lead to another properties: lock-in, learning, and irreversibility.

### **Lock-in**

When a nonlinear physical system finds itself occupying a local minimum of a potential, function, "exit" to a neighbouring minimum requires sufficient influx of energy to overcome the "potential barrier" that separates the minima. There are parallels to such phase-locking, and to the difficulties of exit, in self-reinforcing economic systems. In other words, once a "solution" is reached it is difficult to exit from. To illustrate the property of lock-in, let us consider the technology and innovations in an open economy. Once a new technology starts opening up new niches for other goods and services, the people who fill those niches have every incentive to help that technology grow and prosper. In fact, this process is a major driving force behind the phenomenon of lock-in: the more niches that spring up dependent on a given technology, the harder it is to change that technology -- until something very much better comes along. The well-known standard QWERTY keyboard layout (The name QWERTY is spelled out by the first six letters along the



top row) is a good example to demonstrate what lock-in means and how it works. An engineer named Christopher Scholes designed the QWERTY layout in 1873 specifically to slow typist down; the typewriting machines of the day tended to jam if the typist went too fast. But when the Remington Sewing Machine Company mass-produced a typewriter using the QWERTY keyboard, lots of typists began to learn the system, this leads to other typewriter companies began to offer the QWERTY keyboard, which that still more typists began to learn it, et cetera. QWERTY now becomes a standard used by millions of people, it is essentially *locked in* forever. In many economic systems, lock-in happens dynamically, as sequential decisions "groove" out an advantage that the system finds it hard to escape from (Arthur 1994, p.115).

### **Organisational Learning**

Another source of multiple equilibria is the rate of *learning* by management of organisations. The rate of learning determines the speed of evolutionary process and direction. With the right combination of path dependency and the content of learning, a new evolutionary pattern might be emerged. In other words, an effective management is assessed by how managers can develop quickly an effective set of constructs in response to the environmental changes. In this process of learning, routines may help to retain skill and other forms of knowledge, and to some extent they have the capacity of replicate through imitation, and adaptive learning. For the

SOE example, the rate of learning can explain the unequal growth rates of different retail ownership types.

### **Irreversibility**

The last condition for multiple equilibria to develop is the *irreversibility* of structural change. The introduction of market mechanism means changing the fundamental structure of the economic system. If the market mechanism is to achieve the intended benefits, it is not something that can be turned on today and shut off tomorrow. The favourable market environment and the political party's reform motivation are two principals to ensure the irreversibility of reforms. In the transformation of retailing, the market environmental factors, such as consumer preference is one major force supporting the continuance of retail reform. Consumers once are better off in terms of service quality and store varieties, they are not allowed to let them be narrowed down.

### 3.3 THE IMPLICATION OF CAUSALITY TO RETAILING

The only way to view the interaction is to make use of the natural non-linear dynamics of the system. Arthur (1984) believes that the policy making is a full institutional-political analysis by figuring out who is doing what, and why. There are numerous players in the society for any issues. Moreover, the political system is not some exogenous thing that stands outside the game. Rather, it is actually an outcome of the game -- the alliances and coalitions that form as a result of it.

Figure 3.1

Retail Evolutionary Model (REM)

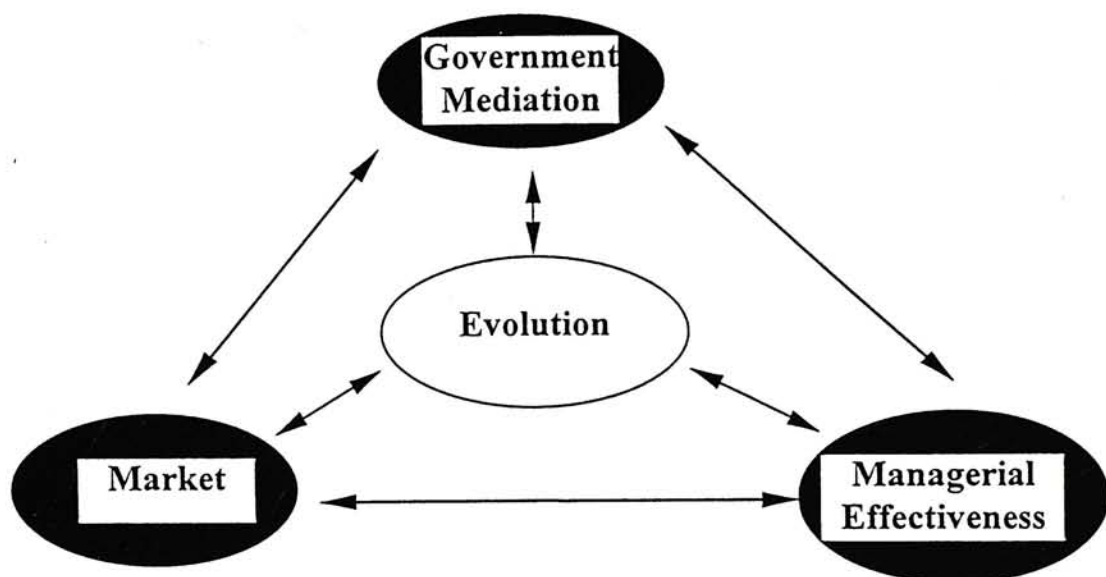


Figure 3.1 shows the causality of selection: interdependent development of industry, market environment, and the government is particularly clear for China

from the last two decades. During this period the central planning system has been released gradually by the state government. The entities in industry and consumers have to respond to the market mechanism automatically.

In addition, figure 3.1 shows an unpredictable process of causation over time. The interface of government mediation, managerial effectiveness, and market environment drives the mechanisms to evolve as time goes by. It should be noted that there is no particular final state towards which the causality tends. The theme of this thesis is the explicit recognition that the economic system is a subset of the biophysical world. Using modern evolutionary theory as a heuristic device lets us emphasise the importance of history, scale, hierarchy, and ecological context to human activity.

Likewise, at the beginning of this chapter, it is clear that in biology, we defined the unit of evolution to be the whole interacting biological system, so for economics we define the unit of evolution to be the entire set of interacting economic agents and their institutions and artefacts. This thesis is interested in evolution rather than stationary equilibrium. Competitive selection is only one phase of the evolution. There exist some other factors driving the evolution which have been discussed in this chapter. The focus of this thesis is on the change in ownership structure in the retail setting in China where the economic reform takes place.



Retail evolution is the result of interaction among multiple agents. Retailers inherit a series of genetic factors. Such genotypic entities (retailers) start interacting, learning, and adapting, the net effect of these interactions being the differential inheritance, multiplication, and variation. To survive and to shape the same population to grow, each retail class has to develop nurturing schemes to counter the natural selection forces. There are four nurturing schemes in retail evolution: inheritance, multiplication, variation, and selection. For survival, each retail class develop should be *inherited* with some fitted "gene" such as business operation norm in usual practice. Retail class usually captures this operation know-how by the activities resided in routine basis -- a decision pattern that represents successful solution to any particular problems, or to benchmark with other survived classes. To ensure the inheritance, management capability within the same retail class is called upon to safeguard the "routine" continues to follow the practice. Most importantly, inheritance processes for retail classes appear very differently and require a long cumulative history of variation and selection to explain how learning and path-dependency influence the extent of inheritance.

When routines and learning ability are said to be the genes to evolve; selective forces via either artificial (government intervention) or natural (competition) are the external driving mechanism. Artificial selection by the government eliminates any retailer not following the ideology. While natural

selection by the consumers eliminates those variants which are less effective in satisfying the needs.

Modes of behaviour of different parties would then settle into equilibrium, just as biological phenotypes settle into equilibrium in the absence of changes in the environment. However, continuous economic change at a non-negligible pace appears unlikely without the interposition of some success in optimisation or else of some entirely separate process making for improvement might be the growth of scientific knowledge, subject to its own independent evolutionary process.

In this sense, path dependency implies historical issues. Economic agents and political actors create and modify the institutions through which economic activity is governed, that is organised, conducted and regulated (Campbell 1997). This concept corresponds to the idea of accidental historical events may determine the course of subsequent developments -- path-dependence -- yet is not necessarily leading to efficient equilibrium position. In fact, the economic processes may be interfered by disturbing causes. For example, the market environmental changes may disturb processes of convergence to efficient equilibria. Also, routines and learning ability determine the width of path dependency. Some routines are mandated and enforced by law, and cannot change unless the law changes. Similarly, it brings out the cases of lock-in with positive feedback. The feedback may not necessarily be functional or leading to fitness. But the sets of genes such as routines and usual practice found in

our society are mutually reinforcing, and become selected because of the greater societal stability occurred. Thus, we have to pay attention on the forces, i.e. laws, regulations and policy that shape the routines or prevailing species over time. The notion of path dependency is able to aid our understanding of how economic agents make their choices. North (1995) further claims that path dependence means the degrees of freedom that policy makers possess to alter the direction of economies are constrained by the institutional matrix and the belief systems of players. North stresses the importance of path dependence on understanding the structural evolution, while criticises the implicit assumption of neo-classical theory that institutions do not matter and can be ignored in policy prescription is itself a prescription for disaster (p.7-12).

As a matter of fact, channel systems operate in dynamic environments in which they constantly will experience various kinds of disturbances of varying magnitudes, such as changes in demand levels, costs, weather, and social, political, and economic factors (Wilkinson 1990). So does retail system. These disturbances or fluctuations continuously test the stability of existing process and organisational structures. A sequence of disturbances when structures are unstable leads to a sequence of structural changes. The latter constitute structural evolution. Etgar (1984) states that a mixture of chance and necessity determines the pattern of evolution that occurs. Wilkinson (1990) and other scholars (e.g., Glaser and Halliday 1980, May 1972, Puccia and Levins 1985) suggest that to find out the effect



one system component has on another is only known qualitatively, then use may be made of qualitative analysis techniques to assess stability.

## CHAPTER FOUR: THE EVOLUTION OF RETAILING IN CHINA

The aim of this section is to examine the mechanisms of enforcement behind the evolutionary process in retail industry where the interaction between the state and market has been of immense importance in socialist societies under market reforms. Besides, as Savitt (1994) says, the background discussion for retail structure, especially the recent past is particularly weak; the present discussion does not provide a sufficient background to appreciate the past fully and, more importantly, does not get to the "basic causes" argument that the authors established as important. This chapter attempts to show the background of a specific historical occurrence as a consequence of the three driving forces, namely government mediation, market demand factor, and managerial effectiveness. It is followed by incorporating with the elements of evolutionary theory that can help explain the whole evolutionary process at present and to forecast the future retail market. While this discussion is not intended as an empirical study, rather it relies heavily upon existing literature in marketing, biological evolution, and information collected during visits in China in the last two years.

### 4.1 A SNAPSHOT OF HISTORY

In any society, the complex systems include cultural and social systems such as political parties or scientific communities which all seem to share certain crucial

properties. In China, the economic system is much more complex where the communism meets the capitalism.

Prior to 1978 the vast majority of production decisions and many consumption decisions in China were made according to central plans rather than via the market mechanisms that are common in capitalist countries. By that time, planners determined outputs and then developed a matrix of the economy to identify inputs needed to meet those predefined goals. Today, as long as the Chinese government keeps her road of market socialism, she still plays an active role over the economic policies.

In the following table 4.1, we can find that the government policies and actions change in accordance with the current social and economic environment. Consider the historical events in China, the central authority favoured a particular form of ownership, which is the state-owned retailers. The government, of course, attempted to lead the market toward this outcome.



Table 4.1

Political Environment in Related to Domestic Trade in China

| Phase | Year    | Period   | Economic Policy on Domestic Trade   |
|-------|---------|--|---|
| I     | 1949-52 | Rehabilitation of the Economy  | The Ministry of Trade was formed to build up the system of nation-wide state-owned enterprises, and economic order under central administration   |
|       | 1953-56 | Transition of Socialism  | Restructuring the private enterprises through take-over   |
| II    | 1957-60 | "The Great Leap Forward": Decentralisation and Mass Mobilisation   | People Commune was formed which controlled all the production materials.<br>The whole society was against the market mechanism.   |
|       | 1961-65 | Readjustment and Recovery due to Natural Disaster in Between 1959 and 1961, and the Sino-Indian War During that Period of Time | Mandatory control over the price and the food distribution by coupon, i.e., ration.   |
| III   | 1966-76 | The Cultural Revolution  | Destroying the commercial institutions and system; almost all private enterprises were either closed down or taken over by the government   |
|       | 1977-78 | Readjustment Period  |   |
| IV    | 1979-83 | Open Door Policy   | Individual was allowed to start business in early 80s. 274 categories (95%) of consumer goods are under planned management  |
|       | 1984-87 | Economic Reform  | Price reform: release price control over particular products<br>Channel reform: channel diversification; re-organise the first- and second-tier wholesale system  |
| V     | 1988-91 | Economic System Restructure  | Retrenchment and slowing down the economic reform, reviewing the current economic policy since the economy was over-heated.   |
|       | 1992    | Deng's trip to Southern China: emphasis on Socialist Market Economy  | In July 1992, foreign-local joint investment in retail department stores was allowed in 6 coastal cities and 5 special economic zones.<br>Only 10 categories (5%) of consumer goods are under planned management  |
|       | 1993-96 | Substantial Decentralisation: The Socialist Market Economy   | Open up the retail sectors and encourage the foreign investment in different retail formats including chain stores, hypermarkets, and franchise stores.   |
|       | 1997    | Deng Xiaoping Theory as guidance to build socialism with Chinese characteristics   | State-owned enterprises reform<br>Encouraging the foreign investment in state-owned retail business<br>Ministry of Internal Trade proposes to allow big foreign retail groups to set up joint ventures with domestic partners in the capital city of all provinces.<br>Up-retailers are discouraged |

Thus, under communism, products are no longer produced for exchange but rather products are allocated on the basis of need. The ultimate goal to achieve communism is to eliminate social classes through equal allocation regardless of individual performance. Under capitalism, efficiency of production and innovation are crucial determinants of economic performance. While examining the transformation of economy, the legitimacy of property rights influences the results of managerial performance. State actions, such as upholding or striking down existing property rights, sustains or alters the relative performance of public and private actors.

#### **4.2 THE CRYSTALLISATION OF RETAIL LIFE**

For the retail population, changes emerge from pre-existing structures. In China, public ownership gave little guidance of exactly why the state-owned retailers were preferred before economic reform. When faced with recurrent problems, state-owned retailers were supposed to follow rules or routine procedures that so far had done well. In other words, the state-owned retailers followed every direction from their superior, i.e. The Ministry of Commerce Bureau, and were not required to confront with any new, unprecedented problems. Social efficiency was addressed here when the central government believed that they could allocate resources most efficiently by central planning. Measuring social efficiency in a communist society is not possible. There lacks an objective measurement tool (e.g. market signal) to



judge if the central planning produces the most desirable combination of goods and services, which can best suit the society under the limited resources.

Seen in this way, of course, the retail evolutionary process would itself be susceptible to causality of each organism among various systems. Here let us start to interpret the Chinese retail system from the evolutionary perspective.

There exists more complicated as the mechanisms to change also take place between species of one class and species of the others, and between the external environment. In retailing, the analogue to a species is a variation of retail formats and their operating arrangements that are drawn from the same class. Each retail class consists of a variety of species, such as supermarkets, department stores, and grocery stores. While different retail classes, like state ownership and private ownership may have similar types of species. The analogy of *selection* process in retailing is based on the gene, and the external selective forces, both artificial and natural, mentioned in the previous chapters. For instance, there exists variation such as supermarkets, department stores, grocery stores, and factory outlets of state ownership class. Natural selection process can only operate when there are sustained variation of species in the homogeneous market. The state-owned retail stores inheriting the genes: bureaucracy and red tape routines are characterised as inflexibility to adapt to new unforeseen situations. The introduction of entirely new species, e.g. hypermarket may intrude to the market. However, not all species of



departmental stores will demise. Though the department stores have similar outlook, they are inherited with different genes in accordance with their parent classes. Thus, private department stores are still alive or even multiply to chain department stores. By contrast, the state-owned department stores, which are less adaptive to the change, will either demise or mutate.

Firms gain these ownership advantages due not to their own efficiency but rather the mediation of government. In retail industry, for example, private retailers traditionally have suffered in relation to other ownership of retailers because of the absence of financial support, tax exemption, and other preferential policies provided by the government. In the model of long run and free competition there is no room for excess baggage. Ownership advantage of state retailers over private retailers and others no longer exists. Non-essential features in a firm would only mean higher costs, lower profits and eventual "extinction" when there is no government mediation on any class of retailers. While market is becoming dynamic, it is possible to build in flexibility so that any retailer is better able to act and react to market signals. Other than flexibility, historical lock-in (Arthur 1989, 1994, David 1988) and the role of increasing returns (Arthur 1989, 1994) are of importance. Economic survival depends not only on genetic selection, but also on artificial selection and natural selection. Arthur argues that, in the presence of increasing returns and historical lock-in, nothing guarantees that the "fittest" firm will survive. This is the essence of

the arguments in this thesis, that there are processes other than natural selection which act to determine the survival of economic agents, here the retailers.

### **4.3 THE STRUCTURE OF CAUSALITY & THE MODES OF BEHAVIOUR**

One of the purposes in this thesis is to explore the connection between the historical events and the transformation of retailing. Government, retailers, and consumers are interacting among each other. Path-dependency and learning in this context of agents choosing repeatedly among discrete actions with initially unknown, random consequences. To examine the evolutionary process, the learning behaviour of each party in this context is discussed.

#### **The Government Mediation**

An economy can, by growing more and more complex over time, bootstrap its own evolution. In fact, once an economy gets beyond a certain threshold of complexity, we can expect a kind of phase transition analogous to the ones evolution. Below that level of complexity we would find countries, like China in her old days before 1978 dependent upon just a few major industries, and her economy would tend to be fragile and stagnant. But if a country ever managed to diversify and increase its complexity above the critical point, then we would expect it to undergo an explosive increase in growth and innovation. In this sense, China has taken off

since mid 80s when the central government started plugging some new ideologies into her society in 1978.

Table 4.2  
China: Gross National Product, 1978-1995

| Year                   | 1978 | 1985 | 1990 | 1994 | 1995 |
|------------------------|------|------|------|------|------|
| <u>GDP:</u>            |      |      |      |      |      |
| Primary Industry (%)   | 28.1 | 28.4 | 27.1 | 20.3 | 19.6 |
| Secondary Industry (%) | 48.2 | 43.1 | 41.6 | 48.0 | 49.1 |
| Tertiary Industry (%)  | 23.7 | 28.5 | 31.3 | 31.7 | 31.3 |

*Source: China Statistical Yearbooks*  
Note: As defined by the China Statistics Bureau, primary industry refers to extraction of natural resources, which includes agriculture such as farming, forestry, husbandry, and fishing. Secondary industry involves processing of primary products which includes mining, manufacturing, and construction. Tertiary industry provides services of various kinds for production and consumption.

The notion of transition implies change from one condition to another. At the simplest level, it is clear that the Chinese economy is looking forward to changing from a production economy to a service economy (see table 4.2). It will become apparent that even the ownership structure is in transition. Such changes in industrial composition and ownership structure hide more than they reveal in fact (also see table 4.3).

Here two arguments are made about the government mediation in the recent past. First, economic structural change has had quite distinct effects in China. The primary industry including fishery, husbandry, and agriculture has long been heading the service industry before 1985. Beginning in 1984, the Chinese government has



allowed individuals to invest in manufacturing and service sectors. Since then, the urbanisation and industrialisation has attracted millions of rural population leaving the farms and starting to search jobs in the urban cities. In this respect, the service industry has stood out at the expense of the primary industry. Table 4.2 shows that GDP in the tertiary industry including finance, insurance, trade and services dramatically increase from 23.7 percent in 1978 to 31.3 percent in 1995. Second, the economic reform has led to ownership structural change as the state sector is now less important to the Chinese economy in terms of its relative contribution to total industry output. The remarkable change in non-state sector drives the reform in state sector in return (see table 4.3).

Table 4.3

State Vs. Non-State Enterprise Performance, 1978-1995

| Year                                | 1978 | 1985 | 1990 | 1994 | 1995 |
|-------------------------------------|------|------|------|------|------|
| <i>Industry Output by Ownership</i> |      |      |      |      |      |
| State-Owned (%)                     | 77.6 | 64.9 | 54.6 | 34.1 | 30.9 |
| Collectively-Owned (%)              | 22.4 | 32.1 | 35.6 | 40.9 | 42.8 |
| Private and others (%)              | 0.0  | 3.0  | 9.8  | 25.0 | 26.3 |

*Source: China Statistical Yearbooks*

These two arguments are made about the future of the Chinese economy. First, there is little opportunity to narrow the spread and development of service sector. Second, having lost the dominance role in state sector, the state-owned enterprises will just fade away if there is no government mediation such as financial subsidies or protective policies. If table 4.3 is examined carefully, it is evident that this trend has been affected by the change in ideology and the role of government.

With reference to the table 4.1, each piece of government policy brought lower levels of performance by SOEs, and in each piece of government policy in favour of private individuals drove the uprising of private performance. Only in the years before 1978 had private sector lost her competitiveness when the communist government had suppressed the entrepreneurs. Similarly, the service sector once neglected by the communism has currently been encouraged.

We can see that the Chinese economy is now becoming dynamics. The SOEs are facing increasing competition from her counterparts like local private individuals, as the significance of the state sector further declines, and as new comers from Japan, USA, and Taiwan intrude the socialist market. In particular, we may see from the above macro economic indicators on table 4.2 and table 4.3, which help explain the trivial-seeming events leading to enormous consequences with deep mechanism of evolution hidden beneath.

There is no doubt that our awareness of historical contingency is proper. Just like the retail industry, with the introduction of socialist-market ideology, its structure is now composed of state and non-state investment with a variety of retail species such as hyper-store, warehouse store, and 24-hour convenience stores which are never ever found in China before 1992. The history of governmental policies is essentially the history of another organism, here the consumers and retailers.

### **The Market Demand Factor**

The fall in market entry and exit allows the consumers have the free choice over the retailers. In the past while mandatory rationing existed, consumers had to procure their daily necessities in the appointed state-run retailers. The state-owned retail stores were the only outlets to obtain the products regardless the consumers' preferences. In light of the policy changes in mid 80s, private individuals were allowed to enter into the retail trade competing with the state retailers though there still had some restrictions over the mechanises they sold. The basic necessities such as grains, sugar, and petroleum were kept in the hands of state-owned channel. Today, the openness of retail sector creates more choices of retail classes and formats to the consumers. Competition among different retail classes enforces the evolutionary process.

Meanwhile, other than the market competition, pattern of consumption also takes considerable effects over the retail evolution. Table 4.4 reflects the changes in household spending from 1981 to 1995 and it highlights that some sectors of consumer spending are in fact growing more quickly like housing, medical services, recreation, education and cultural service, and transportation and communications than the others.



Table 4.4

Changes in Urban Households' Consumption Patterns, 1981 - 1995

| Year   | 1981       | 1985       | 1990        | 1995        |
|--|------------|------------|-------------|-------------|
| <i>Per urban household's consumption expenditure per year (yuan)</i> | <i>457</i> | <i>673</i> | <i>1279</i> | <i>3538</i> |
| Food (%)   | 56.66      | 52.25      | 54.24       | 49.92       |
| [Staple food (%)]  | [13.0]     | [9.0]      | [5.6]       | [4.0]       |
| [Non-staple food (%)]  | [43.7]     | [43.3]     | [47.6]      | [45.9]      |
| Clothing (%)   | 14.79      | 14.56      | 13.36       | 13.55       |
| Household Facilities, Articles and Services* (%)                     | 9.56       | 8.60       | 8.48        | 8.39        |
| Medicine and Medical Service (%)                                     | 1.20       | 2.48       | 2.00        | 3.11        |
| Transportation and Communications (%)                                | 1.45       | 2.14       | 3.17        | 4.83        |
| Recreation, Education and Cultural Service** (%)                     | 7.83       | 8.17       | 8.78        | 8.84        |
| Housing (%)  | 4.30       | 4.79       | 4.76        | 7.07        |
| Miscellaneous and Other Services (%)                                 | 4.21       | 7.01       | 5.20        | 4.28        |

*Source: China Statistical Yearbooks*

Note:

\* Household facilities, articles, and services include durable consumer goods (e.g. refrigerator, and washing machine).

\*\* Recreation, education, and cultural services include durable consumer goods for recreational purpose (e.g. cassette, video recorder, and television set).

The food expenditures in mainland China follows from Engel's Law which establishes a negative correlation between the proportion of income spent on food consumption and total income. As incomes rise, a decreasing proportion is devoted to expenditure on food. Moreover, when we explore each item in a detail, we find that there is an obvious decline in the share of expenditure on staple food from 9 percent in 1985 to 5.6 percent in 1990. In contrast, non-staple food's share of expenditure shows remarkable increases from 43.3 percent to 47.6 percent in the corresponding period of time. In this case, the increase in spending on non-staple

food is mainly contributed by the relaxation of control over retail channel. Consumers pretend to purchase anything beyond basic necessities such as staple food, and are allowed to consume in any retail outlets without particular attachment to state-owned retail shops.

Likewise, the urban dwellers are now spending more on housing due to the urban housing reform, ending a 40-year-old system of subsidised housing. Recently, the urban residents have been offered a chance to purchase their apartments at low price. Consequently, the housing reform has driven up the money spending from 4.76 percent in 1990 to 7.07 percent in 1995.

There is no doubt that the changes in the ownership of consumer durable goods is an indication of the increase in the standard of living of most people in the last two decades as shown in table 4.5.

Table 4.5

Ownership of Urban Household Consumer Durables and Buses, 1980 - 1995

| Year  | 1980   | 1985   | 1990   | 1995   |
|---|--------|--------|--------|--------|
| Number of bicycles owned per 100 urban households               | 135.90 | 152.27 | 188.59 | 194.26 |
| Number of refrigerators owned per 100 urban households          | 0.22   | 6.58   | 42.33  | 66.22  |
| Number of colour television sets owned per 100 urban households | 0.59   | 17.21  | 59.04  | 89.79  |
| Number of buses per 10,000 urban residents                      | 3.5    | 3.9    | 4.8    | 7.3    |

*Source: China Statistical Yearbooks*

Bucklin (1972) and Ortiz-Buonafina (1992) highlight that these factors are some of possible market factors to divert the paths of the retail evolution. As we go further to explore this table, we can find that the number of refrigerators owned by a hundred of urban households increase dramatically from 0.22 in 1980 to 66.22 in 1995. Not surprisingly, it is in line with the average growth rate of refrigerator retail sales (see table 4.6). The boom years for colour television sales in mainland cities were between 1979 and 1987, when the average growth rate was 129.6 percent per year, and the ownership rose by 29-fold between 1980 and 1985. Meanwhile, the mainland's travelling condition is still under-developed as the ownership of buses has increased at a minimal rate during the last two decades. Every 10,000 urban residents owned 3.5 buses in 1980 in contrast to 7.3 in 1995. The insufficient travelling tools bound the consumers to procure merchandise within walking distance.

Table 4.6

Retail Market Indicators, 1979-1995  
(Average Annual Growth Rate)

| Year                      | 1979-1987 | 1986-1991 | 1991-1995 |
|---------------------------|-----------|-----------|-----------|
| Total Retail Sales (%)    | 15.8      | 6.9       | 10.7      |
| Refrigerators (%)         | 73.6      | 20.3      | 14.7      |
| Color Television Sets (%) | 129.6     | 16.8      | 14.8      |
| Washing Machines (%)      | 207.7     | 0.7       | 7.5       |
| Retail Price Index (%)    | 4.3       | 10.8      | 11.4      |

*Source: China Statistical Yearbooks*



The urban consumer boom has ended and with it a golden age for mainland retailers, particularly the state-owned retailers in 80s. Since early nineties, only SOEs were allowed to import and export merchandises. Consumers could only purchase refrigerators, television sets, rice cookers of foreign brands from the state retail channel. Today's consumers are no longer spending on colour television sets, washing machines, and refrigerators, but computers, video compact disc players, video games, and exercise machines. Indeed, among the worst affected by the mainland's change in consumption pattern are the state-owned retailers, since consumers do not have to stick with the authority.

### **The Managerial Effectiveness**

This idea is built upon the organisational genetics perspective (McKelvey 1982, Nelson & Winter 1982), wherein routines are interpreted as the genes of an organisation. Nelson and Winter defined a routine as follows:

Our general term for all regular and predictable behavioural patterns of firms is a "routine." We use this term to include characteristics of firms that range from well-specified technical routines for producing things, through procedures for hiring and firing, ordering new inventory, or stepping up production of items in high demand, to policies regarding investment, research and development, or advertising, and business strategies about product diversification and overseas investment (p.14).

Within the current analytical framework, the retailers are selected for only if they follow the exact routines matching with the environment at that point in time. In the former planned economy, channel objectives were to: firstly, rationalise the flow of goods from producer to consumer; secondly, minimise the number of handling stages; and thirdly, assure the smooth and timely deliver of appropriate assortment of goods through the channel (Gogol 1963). Retailers were required simply to serve to move goods from wholesalers to the consumers. Furthermore, profitability did not influence the incomes of executives and workers nor the growth prospects of firms. The retail structure remained static at that point in time when no incentive existed for retail participants to change the procedures and rules governing their retail activities.

When economic policy was liberalised in early 80s, private enterprises were allowed to compete with the state-owned enterprises in certain specific business sectors including retail trade. Let us look at the number of retail stores and the number of employees since both figures indicate how retail enterprises evolves in accordance with their ownership form after the change in economic policy.

Table 4.7 shows that the total number of stores has increased rapidly since 1980. However, the composition of retail structure has undergone a significant change. The retail channel, which has long been described as state-dominate, is now losing this status. Stores of state-owned and collectively-owned less than one fifth of

the total since 1985. Though the number of private retail stores is highly greater than both state- and collective-owned stores, attention should be paid on the store scale. It should be noted that most state and collectively run business are large in size owing to the historical practices in planned economy. Besides, beginning in 1984, the government allowed individuals to start business, but only in small scale with up to seven employees. Not surprisingly, the private owned stores composed of 82 percent in 1985, compared with 34 percent in 1980. Collective- and state-owned retail stores are similar in nature, but the former ones are owned by local governments, while the latter ones are by central government. The scale of collective-owned stores are usually less than state-owned stores.

Table 4.7

Share of Number of Stores by Ownership Class, 1980-1995

| Year                                | 1980         | 1985          | 1990          | 1995        |
|-------------------------------------|--------------|---------------|---------------|-------------|
| <i>No. of Stores (10,000 units)</i> | <i>202.9</i> | <i>1066.9</i> | <i>1185.6</i> | <i>1496</i> |
| State-owned                         | 9%           | 3%            | 3%            | 4%          |
| Collective-owned                    | 57%          | 16%           | 12%           | 8%          |
| Private and Others                  | 34%          | 82%           | 85%           | 88%         |

*Source: China Statistical Yearbooks*

Similarly, the number of employees in private retail sector has increased dramatically. The share of employment reflects the service quality as well. Table 4.8 shows that among all employees working in retail sector, those in state-owned retail stores, collective-owned retail stores, and private owned retail stores were 31



percent, 59 percent, and 10 percent respectively in 1980. Considering, however, that in 1985, employees working in state-owned retail stores and collective-owned retail stores dropped to 16 percent and 35 percent respectively. Whereas, the number of employees worked for private retail stores increased to 49 percent. After a significant drop in retail employees in state-owned stores, it began to increase slightly to 18 percent and 23 percent in 1990 and 1995 respectively. Among collective-owned retail stores, the number of employees continued to decline to 30 percent in 1990 and 18 percent in 1995. While the employees in private retail stores kept increasing to 52 percent in 1990 and 59 percent in 1995.

Table 4.8

Share of Employment by Ownership Class, 1980-1995

| Year                                     | 1980         | 1985          | 1990          | 1995          |
|--|--------------|---------------|---------------|---------------|
| <i>No. of Employees (10,000 persons)</i> | <i>926.8</i> | <i>2526.3</i> | <i>2952.3</i> | <i>4151.6</i> |
| State                                    | 31%          | 16%           | 18%           | 23%           |
| Collective                               | 59%          | 35%           | 30%           | 18%           |
| Private and others                       | 10%          | 49%           | 52%           | 59%           |

*Source: China Statistical Yearbooks*

The share of employment is indicative of a more general transformation of retailing that has occurred while the government permitted the private individuals to enter into this sector in the middle year of 1984. Today, the retail industry transforms from state to private dominance as the building block of former bureaucratic power is declining.

As discussed earlier, the relaxation of government policy, the self-organisation of retailers, and the change in demand side build up the casual relation over a long period of time. In light of these changes, we observe that the retail market share of each class changes in line with this transformation mechanism.

Since the implementation of the economic reform in late 1978, a lot of changes have been taking place in the economic structure of China. Of which, the retailing system has undergone an evolutionary process where the retail sector transforms from one condition to another. The following table 4.9 demonstrates the effect of transformation mechanism in terms of retail market share.

Table 4.9

Share of Retail Sales by Ownership Class, 1980-1995

| Year                            | 1980        | 1985          | 1990          | 1995         |
|---------------------------------|-------------|---------------|---------------|--------------|
| <i>Sales (100 million yuan)</i> | <i>2146</i> | <i>4570.9</i> | <i>7452.6</i> | <i>12574</i> |
| State                           | 51%         | 40%           | 40%           | 30%          |
| Collective                      | 45%         | 37%           | 32%           | 19%          |
| Private and others              | 4%          | 22%           | 29%           | 51%          |

*Source: China Statistical Yearbooks*

When state-owned retail sales and private retail sales were compared, the former enjoyed a larger retail market share in 1980, 1985 and 1990 (see table 4.9). Take a look at 1980, the state retail sales was 51 percent of total, while private retail

sales was 4 percent only. However, in 1995, the private retailers captured half retail market share, 51 percent in contrast to state retailers, and 30 percent. Similar to state-owned retailers, collective-owned retailers demonstrated a more striking decline market share, there 45 percent of 1980 dropping to 37 percent in 1985, 32 percent in 1990, and 19 percent in 1995.

Another observation on the retail transformation is the development of free markets across the country. It must be realised that the expansion of market mechanism over central planning has experienced in the rural China. The long-standing problem of enormous population in the rural areas pushes the central government to free their way of life. Back in 1978 Comrade Deng Xiaoping started to release the control over the distribution channel in the rural areas. In 1985, the number of free markets in rural areas accounts for 87 percent, which captures about 81 percent of the sales when compared with free markets in the urban areas. Once the rural reform has succeeded, urban reform then proceeds. The number of free markets in urban areas and their transaction values have increased dramatically in the last ten years (see table 4.10).



Table 4.10

Free Markets in Urban and Rural Areas

| Year                                    | 1978          | 1980          | 1985          | 1990          | 1995           |
|---|---------------|---------------|---------------|---------------|----------------|
| <b>No. of Free Markets</b>              | <b>33,302</b> | <b>40,809</b> | <b>61,337</b> | <b>72,579</b> | <b>82,892</b>  |
| Urban (%)                               | 0%            | 0.07%         | 13.06%        | 18.06%        | 24%            |
| Rural (%)                               | 100%          | 99.3%         | 86.94%        | 81.94%        | 76%            |
| <b>Transaction Value (billion yuan)</b> | <b>12.52</b>  | <b>23.50</b>  | <b>63.20</b>  | <b>216.82</b> | <b>1159.01</b> |
| Urban (%)                               | 0%            | 9.91%         | 19.05%        | 38.64%        | 53.29%         |
| Rural (%)                               | 100%          | 90.09%        | 80.95%        | 61.36%        | 46.71%         |

Source: China Statistical Yearbooks, 1995 and 1996

#### 4.4 DISCUSSION

Given the brief history of Chinese retailing and the secondary data above, it is now possible to discuss the model of retail evolution. Based on tables in chapter four, three related observations and discussions have been made. *First*, in the transition from closed economy to the adoption of open door policy since 1978, the state control and dominant in distribution system was diminishing. Retail channel enjoyed new latitude of freedom and vitality with the uprising of private retailers. The prosperity of species in retail channel depends on what ownership class it belongs to. Though both ownership classes: private and state possess department stores for instance, the state-owned department stores face financial difficulties and will be phased out. In Beijing, over fifty percent of 160 state-owned department stores were reported to suffer losses in the first five months in 1997 (Hong Kong

China News Agency 30/8/97) and will either be re-engineered or go bankruptcy. On the contrary, overseas investors have newly established department stores in Beijing, such as Lufthansa Friendship Store and the New Dong'an Market, penetrating into the vast retail market. Thus, though the phenotype, in this case the department store, is the same among two ownership classes, there exist different genes between two of them. The private owned retail enterprises, inherent with superior genes such as advance technology and effective management are able to compete with others. Unlike state-owned department stores, depending upon the central planning and direction, are not allowed to change. The path is characterised as narrow and the learning rate is slow.

*Second*, the tremendous growth in private retail sector in 1980 to 1985 was the cumulative causation for the industry transformation. China has been historically less dependent upon service sector and private enterprises. The dramatic changes took place endogenously in a chain reaction of mutual feedback, i.e. the Chinese government pushed the reform in economy, encouraging individuals in society to set up private business on the one hand, on the other, the high unemployment rate disturbing the societal stability after Cultural Revolution forced the central government to free the individuals from job allocation. Remarkably, hawkers were given licences to operate at the beginning of 80s for the first time since 1957. The central government heaped praise on these "individual economies", officially rating them as able to deliver better service than state-owned shops and as an important

source of employment. In short, these forces came from instability of the process provoked political and economic changes continuously. Private business began to develop rapidly triggering the retail evolution. This, however, brought about the changes in the dominating role of state- and collective-owned enterprises since early fifties. The state-owned retailers also enjoyed a positive growth in number of store outlets, employees, and sales volume. However, the growth rate was obviously lower than in private retail sector. The result was simply because of the historical dependency of SOEs upon the central planning. In addition, the managers of enterprises were deemed to be the agents of the central government in distributing supplies in accordance with the plans established by the state. Nevertheless, the central government did not attempt to provoke social instability. Thus, much more resources and reform attention would still be paid to state-owned retailers.

Between 1985 and 1990, it was the initial stage of growth of the socialist market system. The rapid growth in the various forms of transaction market has broken down the barriers that operate in the planned circulation of retail products, which functioned by way of administrative measures governed by administrative districts. In addition, the single-channel, monopolistic, closed and segmented market has been replaced by markets with multiple economic sectors and multiple channels of circulation. In retail channel, a new structure has been established, with state-owned retailers as the main body, but with collective and private retailers coexisting to suffice the market.



From 1990 onwards, the private retail enterprises has captured even greater market share than the state retailers in some provinces. However, for the sake of social stability, the Chinese government advocates the subsidies and controls over the large state-owned enterprises, it implies that the central government still assists to strengthen the competitiveness of SOEs (Xinhua News Agency 18/9/97). On the contrary, there exists no official statement on the role played by collective-owned retailers in the last two decades. Historically, the collective-owned retailers have been bounded to the local governments by their administration. However, when there exists contradiction between the central government and local governments, this leaves the collective-owned enterprises difficulties.

*Third*, natural selection is a mechanism end-directed process that results in increased reproductive efficiency, and so reproductive fitness can be said to be the end-result or goal of natural selection, the analogy of consumer market environment. Consumers pretend to opt for the best retail outlets in which these outlets can serve the consumers well enough. Given the abundance of retail variation and the opportunity to select their own choice, the consumers are no longer spending at the state-owned outlets, but Sino-foreign retailers such as Theme, and Esprit of Hong Kong, Pacific Department Store of Malaysia, Lawson chain convenience stores, and Yaohan Department Store of Japan. In other words, the changes in consumption patterns overwhelm the old distribution system as they create new markets for those

retail enterprises which are fast enough to capture these opportunities. Per capita income in China has been growing steadily since the economic reform and this has led to gradual changes in consumption patterns.

Meanwhile, three possible selective forces have been identified for which may drive the transformation of retailing from one condition to another. The evolutionary process discussed above demonstrates the path dependence and learning ability over time. With the onset of political and economic reform, there exists a difference in driving mechanics. The private retailers outperformed the state- and collective-owned retailers is not surprising. When we remember that, not too many years ago, state-owned enterprises were the heart of the communist government, the bankruptcy and financial deficiency point to a fundamental collapse of China's ideology of communism and a substantial reorientation of political and economic ideology. It should be quite obvious that the source of retail transformation comes internally and externally. Documenting the emerging of various retail species is quite difficult, given the available data. There is very little in the way of industry data that describe the retail species under the form of different ownership. Nevertheless, examining at the ownership class level shown in tables 4.7 to 4.10 can capture the indications of the transformation of retailing.

In short, the capacity to adapt, to pave the way, and the requirements for self-reinforcement through generic selection, artificial selection, and natural selection may reappear at many levels in such complex retailing system.



## CHAPTER FIVE: CONCLUSION & IMPLICATION

The argument of this paper suggests that the interpretation of economic history should be paid close attention when the economy is under increasing returns. The consumer preferences, company developments, and transformation possibilities that describe the economy and small events can sway the outcome tremendously. Under the increasing returns, in fact, the process becomes path-dependent. Many outcomes are possible, and heterogeneities, small indivisibilities, or chance meetings become magnified by positive feedback.

However, some people may argue that the evolutionary concept seems to be a tautology: survival of the survivors. It seems that the idea tells nothing. But if we think deeply about the entire evolutionary process in retailing, for instance, the difference between a convenience store and a supermarket today is nothing compared with the difference between the convenience store and the supermarket in the past.

Meanwhile, in the original computer model, of course, there was no evolution of the sets because there was no interaction with any kind of outside environment. The model assumed that everything was happening in one well-stirred pot of chemicals, so once the sets emerged they were stable. In the real world, the environment would have subjected to all manners of buffeting and fluctuations. I believe that the concepts in evolution is crucial for understanding the transformation

of the Chinese retailing system as well as economic system as a whole. It also allows us to see the dynamics of social, political and economic changes, the important factors underlying the decline of state-run enterprises, economic reforms, and societal unrest. It provides perspective about the long-term rising non-state sectors' performances in the economy. It leads us to explore and pay more attention on various clues for understanding the changing business policies by the government officials and the corporations as well. It shows us more clearly how the government sector, individual enterprises, and consumers have both responded to, and created, the increasing complexity of the economic system. Most importantly, it permits us to see more clearly the direction of change and to make predictions about the future evolution of the economy in a dynamic perspective. The examination of some characteristics of China's economic policies has revealed a number of features of those retail entities which are conducive to react to continued open economic environment.

Modern machine learning methods from computer science are introducing into economics the possibility of replacing the theoretical, perfectly-rational agents within standard neo-classical models with sophisticated learning algorithms. However, human learning behaviour requires qualitative interpretation. Fair enough. The past studies in retailing seemed to pay attention to the empirical data that did exist. Again and again, for example, someone would ask a question like "What about noneconomic influences such as political motives in the number of foreign

joint-venture retailers, and mass psychology in the stock market? Such noneconomic forces are hard to be treated by mathematical models. Yet ignored with the assumption of perfectly rational agents do have the virtue of being perfectly predictable. Rational men do always keep the economy in a kind of rolling equilibrium, with supply precisely equal to demand. Of course, perfect man never exists. Again in the dynamic economy, the elements are patterns and full of possibilities. It is constantly on the edge of time, which rushes forward, structures constantly, coalescing, decaying, and changing. We should therefore regard economics as high-complexity science. On the same token, we should view our retailing system based on evolutionary perspective such as self-organisation, path-dependence, lock-in, and selection.

## IMPLICATION

The evolutionary approach is a step further to what Sheth, Gardner, and Garrett (1988) refer as the social exchange school of thought in marketing theory. Hunt (1983) argued that "consistent with the perspective of most marketing theorists (Alderson 1965, Bagozzi 1974, 1978, 1979, Kotler 1972) this writer has proposed that the basic subject matter of marketing is the exchange relationship or transaction (p.12)". In retailing literature, however, we find that the economics models tend to focus on heterogeneity for a single attribute or dimension (i.e., quality, price, production costs, firm structure, etc.) in a particular context. In addition, as noted by



Barney and Ouchi (1986), "much of the theory of organisational economics [including retailing] overcomes the liabilities of multiple levels of analysis by positing the existence of only one appropriate level: the transaction" (p.433). In other words, the unit of analysis is the transaction carried out by a firm, which is normally, behaves as if survival were a goal of the system. However, the underlying assumption here is that the acting agents in the system recognise freedom of choices. In an open economy, information search and physical sorting are the processes by which the acting agents adapt to their market environment. In view of Alderson (1965), he suggests that marketing channels can be organised behaviour systems where the channel members expect positively and will achieve a surplus beyond what they could attain through individual and independent action. Contradictory, in the socialist market economy where central planning interplay with market signal, there is no absolute freedom of choices among the acting agents in the market. The exchange takes place in the socialist economy is more than Houston and Gassenheimer (1987) believes -- "the driving force behind exchange is need satisfaction. We express it as the realisation of utility where a utility function is a description of what "commodities" are used to satisfy needs... (p.16)." In the socialist economy like China, the outcomes of exchange depend upon the shared meaning existing among government policy, enterprises, and consumers.

Though the proposed Retail Evolutionary Model (REM) has been virtually absent from scientific testing, this model is so comprehensive that it begins to blur

the boundaries of retailing and other disciplines of sciences. Furthermore, it clarifies the confusion of institutional structure and the economic system. It is also crucial to stress the constraint facing the transition process. The uncertainty of outcomes, at both the aggregate and the individual levels, is the key constraint. Existing controversies among economists on the role of government in a market economy transpose quite naturally to debates on transition. More importantly, even if there is a clear goal of transition, there is no accepted theory of how to get there. Because the transition process is the result of decisions made by individuals and policymakers facing considerable uncertainty of outcomes, a theory of transition must integrate this relative ignorance in modelling the process of transition, as well as the learning process that must take place during transition.

In addition, despite there exists little formal empirical support and the evolutionary perspective has failed to provide operational definitions. This perspective is well supported by case histories and anecdotal evidence. An old Chinese proverb tells us that prediction is difficult, especially about the future. Most forecasts are actually observations about what has happened in the past and present, and which trends in this period are likely to have an impact on tomorrow. Thus, our knowledge of the present and the future is inextricably mixed. Since our comprehension of the present is in continual flux, we can understand why a thorough understanding of the present is necessary for prediction.

Despite the pitfalls, the evolutionary approach has several advantages in studying the future. It forces the analysis to be sufficiently specific about what is happening in the present so that meaningful predictions can be made. It also provides an alternative to most of the current retail studies that focus on such problems as the income level and population. Instead, it directs our attention to a much different set of problems concerning the changes in economic system (institutional change and economic reform) and in policies that influence the behaviour of different agents.

In capitalist economy, market behaviour becomes more and more self-regulated and the role of public policy, including legislation, regulation, and advocacy, becomes unimportant. To date, we have seen the economic reform and dynamic institutional changes in the communist societies including Russia, Poland, and China. The theories developed under the capitalist framework are not entirely applicable in other regimes. The evolutionary approach raised here is more likely to take a truly comprehensive view of marketing that includes the government body, market environment, and all relevant actors. However, this is more an idealistic view rather than a realistic view of marketing. In China, the lesson we learn here is that there exist nonexchange-based mechanisms for market transactions include mandatory rules and regulations; and the transfer of products and services without exchange. The role of government regulates the market and monitors the behaviour of acting agents as well. All parties in the market are not free to communicate to one



another. Consequently, there occur so many constraints for modelling the market evolution. For scholars, the retail evolutionary model here in fact provides a new perspective to view our retail system from the dynamic and evolving nature of society.

In the mainland retail sector, as in other key sectors such as telecommunication, infrastructures, and regulations are only as effective as the willingness of the authorities to implement them. Some mainland commentators have even said the authorities are the law. Moreover, industry regulators tend to promulgate regulations on an ad hoc basis and in response to specific problems that come to their attention. The authorities are reluctant to commit to any particular regulatory framework. The result of this is reflected in the odd mix of detailed regulations in certain areas, such as the direct marketing (Internet marketing), direct sales, and the lack of a comprehensive and national law and governing regulations, which address industry concerns.

The most common understanding of the relationship between the government and business in general and retailing in particular is that the government exerts the power over the formation of retailers and their distribution process. When the government releases control over the state-owned retailers, their competitiveness is apparently weaker than the other ownership classes of retailers such as joint-ventures. The historical events can provide policymakers to focus on the dynamic

nature of marketing and the beauty of invisible hand. The emphasis on state planning does not necessarily boost the business growth, like retail sales. Rather, it generates the hurdle to grow and compete.

Meanwhile, it hopes that the market practitioners, before entry to the market, particular in the Chinese retailing system, should review the history of retailing and government policies in parallel. Given the existing approach of the authorities to the role of law in the sector, foreign investors are advised to conduct proper and due diligence as to the appropriate approval authorities for proposed projects and on the due authority of mainland partners to enter into a project. Likewise, foreign investors should ensure they are aware of regulations which apply to their projects, and the requirements imposed by these regulations on individual transactions, in particular, licensing or registration requirements. Like the direct sales giant, Amway (China) Ltd., the sudden withdrawal of permission curbs the development of its business (Economic News 26/04/98). Retailers should seek the path to follow through.

In line with the proposed model, it is recommended to construct and calibrate algorithms to fit actual human behaviour so that we can learn our way into multiple decision equilibria and understand the dynamics of the market behaviour more scientifically.

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